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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/848,701      | 05/02/2001  | Joseph Zelina        | H0001340            | 7935             |

7590 02/27/2004

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| EXAMINER |
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KOCZO JR, MICHAEL

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| ART UNIT | PAPER NUMBER |
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3746

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DATE MAILED: 02/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/848,701

Applicant(s)

ZELINA, JOSEPH

Examiner

Michael Kocz, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicant's arguments filed on August 13, 2002 have been fully considered but they are not persuasive.

#### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the structure of claims 16, 18, 22, 23, 26, 28, 31, 32, 34, 35, 40 and 41 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Note that in figure 1, the main circuit fuel nozzles 32 and the pilot circuit fuel nozzle 21 are not located at the same axial and radial locations. As a matter of fact, the pilot circuit fuel nozzle 21 is coaxial with the injector center line 10A, and the main circuit fuel nozzles 32 are radially spaced from the injector center line 10A.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

#### ***Claim Rejections - 35 USC § 112***

Claims 21, 25 to 33 and 39 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is no basis in the specification, as originally filed, for the subject matter as recited in these claims. Applicant argues that "Residence time for a vessel is a function of vessel

volume”. However, there is no basis in the specification for the relative volume relationship as set forth in these claims.

Claims 15 to 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 15, the dome cooling nozzles are recited in a disconnected manner. In what structure are these nozzles formed?

In claim 16, there is no antecedent basis for “the pilot circuit and the main circuit fuel injection systems”. It is furthermore not understood what structure is considered as the pilot circuit and the main circuit fuel injection systems and how it is “incorporated” into the fuel injector body.

In claims 17, 27 and 36, there is no antecedent basis for “the pilot and main circuit fuel injection systems”.

In claims 18, 28 and 34, there is no antecedent basis for “pilot circuit fuel and main circuit fuel injectors”.

In claims 19 and 29, the “axial air swirlers” are a double inclusion of the “axially oriented air swirlers” of claims 15 and 25, respectively.

In claims 20, 30 and 38, it is not clear to what feature “positioned” refers. It is also not understood what is meant by “compound angle”. What is the reference frame for this angle?

In claims 21 and 39, there is no antecedent basis for “the pilot circuit and main circuit fuel injection systems”. It is also not clear what is meant by the “combined volume” of the pilot

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circuit and main circuit fuel injection systems. That is, what are the boundaries of these fuel injection systems?

Claims 24, 33 and 42 recite the intended use of aviation fuel. No structure is recited to further limit a preceding claim. It is therefore not understood what limiting effect these claims are intended to have.

In claim 25, there is no antecedent basis for “the pilot and main circuit fuel injection systems”.

Regarding claim 26, it is not understood what structure is considered as the pilot circuit and the main circuit fuel injection systems and how it is “incorporated” into the fuel injector body.

In claim 34, there is no antecedent basis for “said pilot circuit fuel and said main circuit fuel injectors”.

In claim 35, there is no antecedent basis for “the pilot circuit and the main circuit fuel injection system”.

Thorough revision of the claims is required in order to render them definite in form according to the statute.

### ***Claim Rejections - 35 USC § 102***

Claims 15 to 21, 23, 24, 34 to 39, 41 and 42, as understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Pritchard et al. Note unidentified dome cooling nozzles shown in figure 4 of Pritchard et al. (Also see attachment “A” which identifies the dome cooling nozzles).

***Claim Rejections - 35 USC § 103***

Claims 22 and 40, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Pritchard et al. in view of Sjunnesson et al. Sjunnesson et al. disclose that gas turbine combustor can be either of the “can” type or “annular” type (see col. 2, l. 28). In view of this teaching, it would have been obvious to substitute a “can” type combustor for the “annular” type combustor of Pritchard et al.

The prior art could not be applied to claims 25 to 33 due to their indefiniteness and basis on an inadequate disclosure.

***Oath/Declaration***

This application presents a claim for subject matter not originally claimed or embraced in the statement of the invention (dome cooling nozzles). A supplemental oath or declaration is required under 37 CFR 1.67. The new oath or declaration must properly identify the application of which it is to form a part, preferably by application number and filing date in the body of the oath or declaration. See MPEP §§ 602.01 and 602.02.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

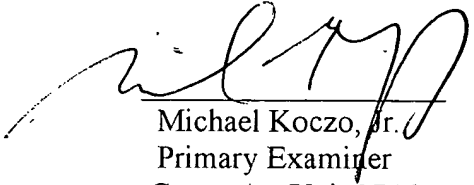
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry relating to the status of this application or proceeding should be directed to the Customer Service Office whose telephone number is 703-306-5648.

Any inquiry relating to patent applications in general should be directed to the Patent Assistance Center at 1-800-786-9199.



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